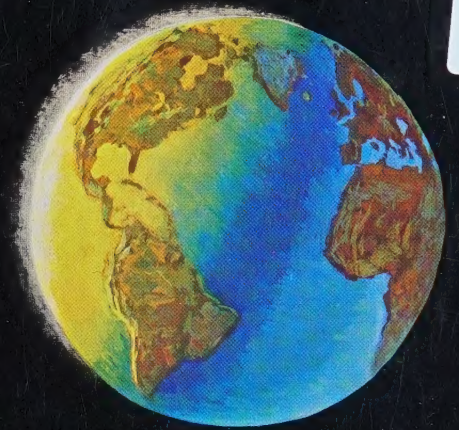


AR36



1965 ANNUAL REPORT **TRW**

INDEX

Letter to Shareholders	1
Directors & Officers	2
The Year in Review	3
Financial Review	12
TRW Operations & Products	25

The Annual Meeting of Shareholders will be held at 2 P.M. Eastern Daylight Saving Time on Tuesday, April 26, 1966, at the Corporate Headquarters of the Company, 23555 Euclid Avenue, Cleveland, Ohio. Shareholders are cordially invited to attend this meeting. A formal notice, together with a proxy statement and form of proxy, will be mailed to all shareholders in advance of the meeting.

Transfer Agents The National City Bank of Cleveland—4% Preferred, Series A Preference and Common Stock (also Dividend Disbursing Agent) • Bankers Trust Company—4% Preferred Stock • Morgan Guaranty Trust Company of New York—Series A Preference and Common Stock.

Registrars The Cleveland Trust Company • The Chase Manhattan Bank • Bankers Trust Company.

Stock Listings 4% Preferred: New York Stock Exchange • Midwest Stock Exchange. Series A Preference: New York Stock Exchange. Common: New York Stock Exchange • Midwest Stock Exchange • Pacific Coast Stock Exchange • Philadelphia-Baltimore-Washington Stock Exchange.

THE COVER scene, adapted from a corporate advertisement that appeared shortly after the name change from Thompson Ramo Wooldridge Inc. to TRW Inc. on April 30, 1965, appropriately symbolizes the international and interplanetary dimensions of the company's business. The far reaches of space provide many challenging opportunities in transportation, communication and scientific exploration. At the same time, TRW continues to expand its technological capabilities in a growing number of down-to-earth commercial and industrial markets.

TRW Three-Year Highlights

	1965	1964	1963
	(dollar amounts in thousands)		
Net sales	\$664,510	\$553,420	\$482,639
Income before income taxes	54,473	43,745	29,393
% to sales	8.2%	7.9%	6.1%
Net income	28,976	23,409	15,165
% to sales	4.4%	4.2%	3.1%
% to common shareholders' equity.	18.3%	14.9%	10.7%
Working capital	115,510	124,386	110,571
Total shareholders' investment.	211,330	198,777	150,345
Per share of common stock:			
Net income	\$ 3.15	\$ 2.45	\$ 1.98
Dividends paid	1.20	.90	.73
Book value	17.53	15.93	18.94
Number of shareholders of record:			
4% Preferred	280	313	325
Series A Preference	7,282	7,411	—
Common	21,088	18,402	11,350
Number of shares outstanding:			
4% Preferred	64,088	65,548	72,898
Series A Preference	530,158	565,160	—
Common.	8,490,238	8,311,602	7,527,980
Worldwide employment	46,873	39,511	33,191

TO OUR SHAREHOLDERS:

1965 was the best year TRW ever had. Sales, net income, earnings per share and dividends set all-time records. Employment, payrolls and employee benefits also reached the highest levels in the company's history.

As highlighted on the page to your left, and discussed in detail in the financial review starting on page 12, consolidated sales were \$664.5 million, an increase of \$111.1 million or 20% above the \$553.4 million of 1964. Net income was \$29 million, a gain of \$5.6 million or 24% above the \$23.4 million of 1964. Profit margin after taxes was 4.4% of sales, compared with 4.2% in 1964. Earnings were equivalent to \$3.15 per share, compared with \$2.45 in 1964, an increase of about 29%. Return on the equity of common shareholders rose to 18.3%, compared with 14.9% in 1964.

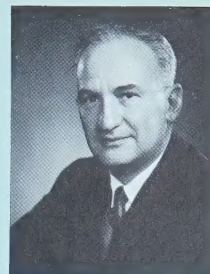
TRW's quarterly dividend rate was increased twice during 1965 in addition to an extra year-end dividend. Cash payments amounted to \$1.20 per common share, an increase of one-third above the \$.90 paid in 1964. The 109th consecutive quarterly dividend was distributed last December.

TRW sales advanced on a broad front in 1965. All major segments of the company contributed to the year's record results. Sales to commercial and industrial markets, both domestic and overseas, showed substantial gains. There was also a marked increase in billings to government agencies for advanced technical systems.

The company benefited from sharply increased commercial aircraft requirements, and each of its electronic operations recorded



J. D. Wright



Dr. Simon Ramo



H. A. Shepard

new sales records reflecting the strong demand for color TV, home and auto radios and other entertainment products. Sales of components to the motor vehicle and industrial equipment markets continued to expand on a worldwide basis.

Technology has never been more important. It is the cornerstone of our business. Advanced technology is used in every conceivable way to improve our manufacturing methods and processes. We are applying our experience in systems management to many of the nation's complex long-range programs. These include the current and advanced ballistic missile systems, the Navy's anti-submarine warfare program, NASA's Apollo-Gemini projects and several unmanned spacecraft programs. Just recently we were selected by the Communications Satellite Corporation (COMSAT) to negotiate for a contract to build a series of global commercial communications satellites. We are also working on a number of promising projects utilizing our substantial systems management capabilities to help provide solutions for problems related to water conservation, hospital design and highway traffic control.

TRW has a growth plan. Our goal is to achieve a billion-dollar sales level by 1970. It now appears possible that we will achieve this goal before that time. We continue to be interested only in the type of growth that results in increased earnings per share and that can be reflected in higher dividends to shareholders and an improved market value for their investment. In order to achieve our growth objectives, we plan substantial investments in new facilities in 1966.

Human resources are vital to TRW's success. As the company

celebrates its 65th anniversary this year, we have an organization in which maturity and experience are matched with a youthful, aggressive spirit and a high sense of dedication. Today, more than 10 percent of our employees have technical degrees, including several hundred Ph.Ds. We also employ more than one percent of all the country's physicists. Last year we added more than 7,000 people. In January we had 50,000 people working in 171 locations throughout the world.

Further growth is expected in 1966. We have never commenced a new year with a more favorable outlook for continued growth. TRW's strong financial resources and flexibility, built up in recent years, permitted the company to invest in a number of important international ventures during 1965 and early 1966. Their performance will be reflected in results for the current year. Our backlog of new orders, both foreign and domestic, exceeds any previous level in the company's history. This should result in another very substantial sales increase in 1966 and a good growth in earnings.



CHAIRMAN OF THE BOARD AND
CHIEF EXECUTIVE OFFICER



PRESIDENT

February 18, 1966

DIRECTORS

J. A. ALEXANDER, *Attorney and Partner, Krieg, DeVault, Alexander & Capehart*
R. F. BACHER, *Professor of Physics and Provost, California Institute of Technology*
J. T. BROWN, *Vice President, Mellon National Bank and Trust Company*
A. T. COLWELL, *Retired Vice President, TRW Inc.*
F. C. CRAWFORD, *Chairman of the Executive Committee, and Honorary Chairman of the Board*
J. H. DOOLITTLE, *Lt. General, USAF (Ret.)*
H. A. JOHNSTON, *Retired President of Marlin-Rockwell Company division*
R. F. METTLER, *Executive Vice President*
S. C. PACE, *Executive Vice President*
S. RAMO, *Vice Chairman and Member, Executive Committee; and President, The Bunker-Ramo Corporation*
E. P. RILEY, *Executive Vice President*
H. A. SHEPARD, *President and Member, Executive Committee*
W. S. VAUGHN, *President, Eastman Kodak Company*
D. E. WOOLDRIDGE, *Author and Scientist*
J. D. WRIGHT, *Chairman of the Board and Chief Executive Officer, and Member, Executive Committee*

OFFICERS

J. D. WRIGHT, *Chairman of the Board and Chief Executive Officer*
S. RAMO, *Vice Chairman*
H. A. SHEPARD, *President*

Staff Vice Presidents

E. C. BRELSFORD, *Finance*
R. A. BURGIN, *Assistant to Chairman*
J. E. DUNLAP, *Human Relations*
J. H. KERR, *General Counsel*
R. S. LIVINGSTONE, *Special Assignments*
G. R. MOORE, *Customer Requirements*
H. Q. NORTH, *Research and Development*
M. E. PRICE, *Accounting*
J. H. SHAFFER, *Customer Requirements*

Other Staff Officers

C. R. ALLEN, *Controller*
E. E. FORD, *Assistant General Counsel*
E. E. STUART, *Treasurer*
P. W. SCHUETTE, *Secretary*
P. E. PRIEST, *Assistant Controller*
J. F. BRADLEY, JR., *Assistant Treasurer*
W. G. KING, JR., *Assistant Treasurer*
R. F. BRITTON, *Assistant Secretary*
R. B. CORPENING, *Assistant Secretary*
R. J. LEAVER, *Assistant Secretary*

(Operations officers are shown with their respective units in the listing beginning on page 25.)

THE YEAR IN REVIEW

TRW's achievements in 1965 were as diverse as its products and services. During the year, the company strengthened its position in its traditional markets and expanded into several related fields. The application of advanced technology continues to be the basic building block of the business. In recent years, TRW has come to represent a new kind of scientific-industrial organization that serves many specialized commercial and government markets.

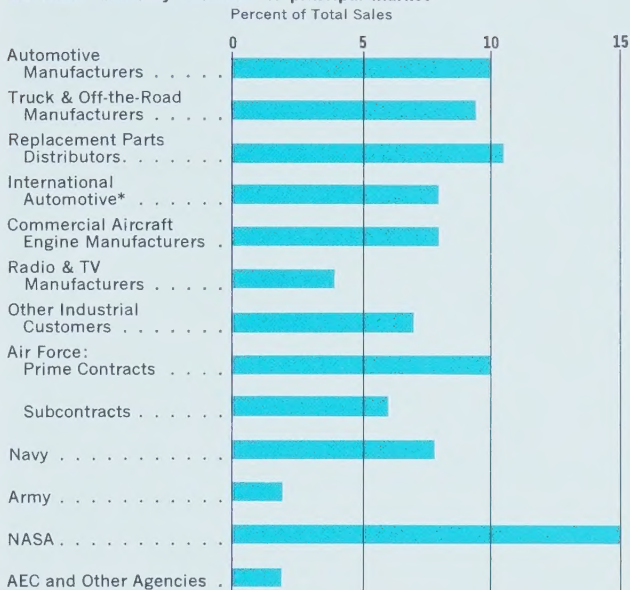
Today, the company has attained a market balance that provides a sound base for profitable growth regardless of temporary trends in any one industry or changes in government procurement policies. The chart on the right indicates the range of our current customer and market diversification. At this time, no single product line, program or contract accounts for as much as 10% of total sales. We are participating in many important fields, contributing to new and improved concepts in transportation, communications, home entertainment, space exploration, ordnance, industrial equipment, and systems management.

The employment chart on this page is further evidence of the company's progress, and it also points up the continuing need for attracting competent, imaginative people for the projects and programs summarized in this report.

Aerospace Highlights. For TRW's aerospace operations, 1965 was a year of accomplishment highlighted by further expansion of our responsibilities in many of the nation's high-priority security and space exploration programs. TRW's aerospace markets cover a broad group of specialized components, systems and services sold to both government and industrial customers, including all branches of the Department of Defense, the National Aeronautics and Space Administration, Atomic Energy Commission, other federal agencies, manufacturers, universities and foreign companies.

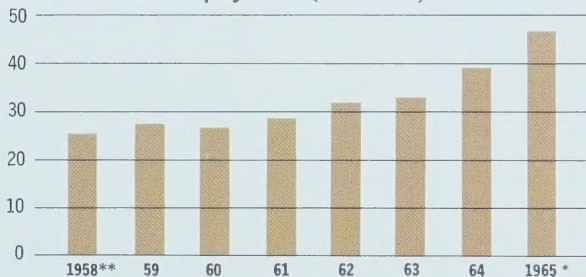
The programs for which TRW has important responsibilities involve some of the nation's principal objectives—landing men on the moon, strengthening antisubmarine warfare capability, improving the strategic missile deterrent force, modernizing our

TRW sales by customer or principal market



*Includes all operations outside the United States.

TRW worldwide employment (in thousands)



*Not including 3,488 employees of Clifford Motor Components, Ltd. acquired in January, 1966.
 **Year of merger.



military air power and broadening worldwide communications capabilities.

Continuing emphasis on advanced technology and its application in related product areas has resulted in both strong specialization and a broader base of capabilities. This is especially true of TRW Systems (formerly TRW Space Technology Laboratories), which changed its name last July to identify more clearly the evolving nature of its business.

Today TRW's Systems group has more than 300 contracts, with two-thirds of this work involving either fixed prices or incentive clauses that reward or penalize performance. Employment at TRW Systems increased from 7,500 to nearly 11,000 last year, and the hiring rate is expected to rise during 1966. TRW Equipment operations in Cleveland have been adding new people at the rate of 250 per month. During the last half of 1965, two-thirds of the hourly work force in our largest Cleveland plant were upgraded to better jobs through intensive on-the-job training programs.

New facilities are being built to sustain our growth. Construction has started on three new buildings at our California space center and a new manufacturing facility was occupied in 1965. Other new engineering, manufacturing, testing and office expansion has been or will be completed in Houston, Tex., Washington, D.C., San Bernardino and San Juan Capistrano, Calif., and Cleveland and Minerva, Ohio.

Space Technology. TRW's competence in space systems technology has enabled the company to participate in nearly 90% of U.S. launches. In addition to serving as prime contractor to the Air Force for the Nuclear Detection Satellites (six launched), TRW continues as prime contractor for NASA's Orbiting Geophysical Observatories (two launched), and the new series of Interplanetary Pioneers, the first of which was placed in orbit around the sun in mid-December. TRW received a bonus for successfully positioning this spacecraft while in orbit and can

earn additional awards for meeting or exceeding in-orbit performance during the first six months of flight.

Our role in NASA's Gemini and Apollo manned space projects continues to expand. TRW is assisting the Manned Spacecraft Center in developing mission and trajectory analyses for both Gemini and Apollo. Under subcontract to Grumman, TRW is developing the descent engines that will soft-land men on the moon in this decade. We are also designing the emergency guidance system for the Lunar Excursion Module (LEM) that will effect a rendezvous with the Apollo mothership in the event the primary guidance system fails.

Other projects related to the manned moon mission include special communications equipment for NASA's worldwide tracking network, low-thrust attitude control engines for one of the stages of the Saturn V booster, an advanced chemical auxiliary power system for the LEM, a "hopper" engine unit to operate on the lunar surface, microelectronic circuitry, special materials and equipment packages for lunar experiments.

Last July, TRW's manufacturing abilities were demonstrated when the Mariner 4 made its historic photographic fly-by of Mars. Our central computer and sequencer helped the spacecraft find its way, and we also developed guidance equations for the lift-off, supplied thermal control equipment to protect the electronic gear, and produced the electrical power distribution system. Studies were completed for the Voyager spacecraft that will investigate Mars. TRW is also studying the feasibility of an unmanned interplanetary probe to Jupiter and beyond.

Communications Satellites. On December 18 the Communications Satellite Corporation announced it would negotiate with TRW for the development of satellites for its global communications system. Participation in this worldwide system would assure TRW a preeminent position in the highly promising field of communications by satellite. TRW technology won over distinguished competition for this system, which is designed to provide 1,200

high-quality, two-way voice channels or four television channels.

Production is under way on satellites for the first Department of Defense communications satellite system being built by TRW for Philco, and studies have been completed on the Advanced Defense Communications Satellite Program.

Space Power and Rocket Components. Sustained progress was made in 1965 toward the development of an advanced space power conversion system capable of long-duration life in space. Advanced plasma and ion propulsion systems are being studied under NASA and Air Force contracts, and the company is continuing its work on the POODLE radioisotope space vehicle thruster under AEC and Air Force contracts.

TRW activities in the rocket engine components field are centered in production of rocket nozzles and ablative chambers for Minuteman, Polaris, Titan III-C, Saturn SIVB and the Apollo LEM engine programs. TRW's first 260-inch diameter nozzle was employed successfully in the first firing of Aerojet-General's giant solid motor last year. The Titan III-C, equipped with TRW-built nozzles, was flight tested several times in 1965. The company also delivered the first 156-inch nozzle fabricated by an advanced process requiring no large pressure vessels.

Materials Technology. TRW's experience in advanced materials and process development, combined with capabilities gained in rocket nozzle work, led to new contracts for development and fabrication of composite material structures for torpedoes, armor and propulsion components. Deliveries continued on advanced re-entry vehicle heat shield structures and hot gas booster valves.

A unique facility for testing fatigue and creep in metals exposed to high temperatures is being operated for NASA at TRW's Colwell Engineering Center in Cleveland. NASA has also purchased a TRW-developed particle injector kit which allows scientists to study, in their laboratories, the effect of micrometeoroids on spacecraft materials and astronauts' spacesuits.

Weapons Systems. TRW's 12-year role as systems engineer for

the Air Force ballistic missile programs is continuing on Minuteman II. Activation engineering for Minuteman II is under way, and TRW is also providing the Air Force with a new gyro compass to orient silo-based missiles. Studies on range instrumentation, re-entry phenomena and new missiles are also being performed.

From the systems management of missile programs to producing shoulder weapons for soldiers in Viet Nam, TRW continues to provide strong support for national defense. Award of a contract for M-79 grenade launchers combines with the Browning sports rifle program to give the company both military and commercial small arms business. TRW's newly-developed 25 mm rapid fire vehicle weapon system was successfully demonstrated during 1965 before both U.S. and foreign military agencies. The company is developing an integrated data management system for the Army's new advanced aerial fire support helicopter program, and systems engineering service is being provided for the Army Missile Command's Sparta program.

Undersea Warfare. In a critically important mission, TRW is proceeding with systems integration and test support for the Navy's antisubmarine warfare program. The company is also manufacturing the complete propulsion system for the Mark 46 anti-submarine torpedo as a subcontractor to Honeywell. The Honeywell-TRW team won a multimillion dollar contract in December to mass produce the undersea weapon, and this program is expected to provide high-volume manufacturing orders for several years.

TRW is currently developing a torpedo propulsion system that offers increased power, range and noise-reduction advantages over present systems, and production is also continuing on a new family of control rod drive mechanisms for seagoing nuclear propulsion plants.

Aircraft Business Improves. Aircraft production schedules, relatively stable in 1964, accelerated very rapidly in 1965 as commercial requirements produced the largest backlog of orders since the late fifties. As a major subcontractor to U.S. airframe and engine



TRW turbine blades and other components are used in almost all jet aircraft.

builders, TRW expects to share in new business resulting from a strong commercial jet market that has been augmented by increased procurement of military aircraft.

TRW is the industry's largest independent supplier of jet engine components, including blades, vanes, buckets, structural parts and weldments. The company also produces fuel and booster pumps, hydraulic and pneumatic components, ball and roller bearings, specialized investment castings and wrought superalloys for jet aircraft.

The company's divisions in Ohio, Pennsylvania and New York are currently making parts for all of the airplanes that figure prominently in the \$7 billion budget for military aircraft. This includes the F-111 fighter, the new C5A troop carrier, the F-4 Phantom II fighter-bomber, the A7A Corsair II attack plane and the new counterinsurgency (COIN) attack plane. The need for helicopter engine components is increasing, as are the requirements for aircraft engines adapted for use in groups as stationary gas turbines to generate standby electrical power.

Approximately half of the volume in our aircraft parts plants are components being delivered for all types of long, medium and short-haul commercial passenger jets. TRW is also producing prototype engine parts for the U.S. Supersonic Transport, and a TRW booster pump design will be produced for the British-French version of the SST under a royalties arrangement. In another cooperative program, TRW has developed casting techniques in support of a new Pratt & Whitney superalloy development which may extend by 20% the life of jet engine components.

Electronics for Space and Defense. Among many electronics programs underway within TRW divisions is an advanced Air Force concept for tracking, telemetry and control for manned and unmanned spacecraft. This program, called the Space Ground Link System (SGLS), passed its first demonstration test in 1965.

TRW electronic components are used today in every major U.S. missile and space program and the company is maintaining its

position as the prime supplier of RF tuning devices for military and commercial jet aircraft. In a related field, TRW transistor technology is playing a leading role in the conversion of electronic communications equipment from vacuum tubes to solid-state devices. The "cell" technology developed by TRW Semiconductors has dramatically enhanced the state of the art for high power, high frequency communication transistors. The first all-solid-state civilian aircraft radio, introduced in 1965, used TRW transistors, and an advanced high-performance transistor was recently developed under a Signal Corps contract.

TRW's proprietary Varicap® diodes are vital components in newer electronic-tuned military radios. Our semiconductors, RF tuning devices and capacitors are used in a variety of equipment employed by armed forces in Viet Nam, including "walkie-talkies," jet aircraft and rescue beacons used for locating downed pilots.

We also rank as the leading supplier of transistors for sonobuoys, devices employed for locating and tracking hostile submarines. Our capacitors and semiconductors continue to be used in many critical applications by the Atomic Energy Commission.

Commercial Electronics. The consumer electronics industry enjoyed unprecedented growth in 1965, and technological advancements helped TRW make important contributions to exploding markets for television, stereo/hi-fi equipment, car and home radios and electronic games.

Color television fulfilled its promise and now rates as one of the fastest growing U.S. industries. More than 2.6 million color TV sets were sold last year and more than four million color sets should be sold this year. The majority of color TV sets in use or in production employ components made by TRW.

We are the leading supplier of color convergence yokes, a vital component that helps to magnetically convert the reds, blues and greens into life-like color. Our Electronic Components division, headquartered in Des Plaines, Ill., also makes color TV separation coils and IF transformers, trimmers, variable capacitors and tuners



vesting heavily in special-purpose piston ring equipment to meet growing customer demands. TRW's patented molybdenum-coated piston rings, introduced at the beginning of the 1963 model year, are now standard in 36 American-built engines. TRW was first in this field and is now the number one supplier of moly-coated rings.

Another major capital improvement program will be completed this year in Marlin-Rockwell facilities. A multimillion dollar installation of several automated ball bearing lines has strengthened competitive efforts at Jamestown, N. Y., while the Falconer, N. Y., plant is being expanded to produce more large precision ball bearings for aircraft, missile and machine tool industries. Substantial modernization will take place at the division's Plainville, Conn., plant. TRW ball and roller bearings are used in many industries, from electric motors and farm machinery to helicopters and materials handling equipment.

TRW's projection welded tip for exhaust valves has moved closer to becoming an industry standard as a result of applications on engines of several major car builders. TRW engine valves are produced for every U.S. car and truck manufacturer, as well as for internal combustion engines found on lawn mowers, golf carts, road graders, farm tractors and other vehicles. The Valve Division also continues to contribute to industry progress through the development of improved valve alloys. In 1966 the two-billionth TRW valve will be produced on our expanded automated lines in Cleveland.

TRW turbochargers are being sold in greater numbers to the diesel engine market for heavy-duty, off-the-road equipment and stationary power plants. Our patented combination spring retainer cap and oil shield assembly is also gaining wider acceptance as standard equipment.

The continuous increase in vehicle registration and further expansion of its product line spurred TRW Replacement Division to a record level of distribution in 1965. The addition of piston rings,

camshafts, rocker arms and oil pumps further strengthened the company's position as a major supplier to the aftermarket.

Thompson Products, Ltd., our Canadian subsidiary, had another record year. This operation continues to rank as that country's leading independent supplier of engine and chassis components. A major plant expansion, now being completed, involves the installation of an automated valve manufacturing line and the enlargement of the piston casting facility.

International Operations. Last year the company accelerated its international expansion program, with major advances coming chiefly from the mushrooming overseas vehicle markets, whose rate of growth has exceeded that of U.S. markets in recent years. All major U.S. vehicle producers and many of the foreign suppliers have urged TRW to establish operations in those countries in which they operate. This factor, together with proper consideration of political, economic, manpower and financial elements, has stimulated our international expansion efforts.

In the past five years, TRW has acquired a majority or 100% interest in 11 foreign manufacturing firms. We now have 17 major subsidiaries and affiliates making and selling products in 12 countries on five continents. In addition, we have continued to expand our export sales and overseas licensing arrangements.

During 1965 TRW purchased all but 3% of the remaining shares of Cam Gears Ltd., a British producer of steering components. This transaction includes the controlling interest in Hydroteer, Ltd. in England; Cam Gears/TRW (Pty) Ltd. in Australia; and Cam Gears Italia. In January of 1966 we completed two important acquisitions, buying the remaining shares of Gemmer-France, a major steering gear manufacturer in which we had obtained a minority interest via the Ross Gear acquisition, and purchasing Clifford Motor Components Ltd., one of England's largest suppliers of valves, steering wheels and other components.

In cooperation with the French government's depressed area industrialization program, we have agreed to build a new factory

in the Vosges Department of France for the production of automotive components. TRW also purchased the land and buildings previously leased by its French piston ring manufacturing company at Pringy.

A new foundry addition is being completed at the Barsinghausen plant of Teves-Thompson, our affiliate in West Germany.

Latin American operations increased substantially in 1965. In Argentina, demand for auto parts strained the capacity of Thompson Ramco. To keep pace, facilities have since been expanded at Cordoba. In Mexico, TRW obtained the controlling interest in Partes de Motor S.A., a major valve producer, and acquired the remaining shares of Auto Partes Mexicanas S.A., a piston manufacturer. A major capital appropriation will consolidate these operations with Thompson Ramco Mexico in a new facility to be constructed near Cuernavaca.

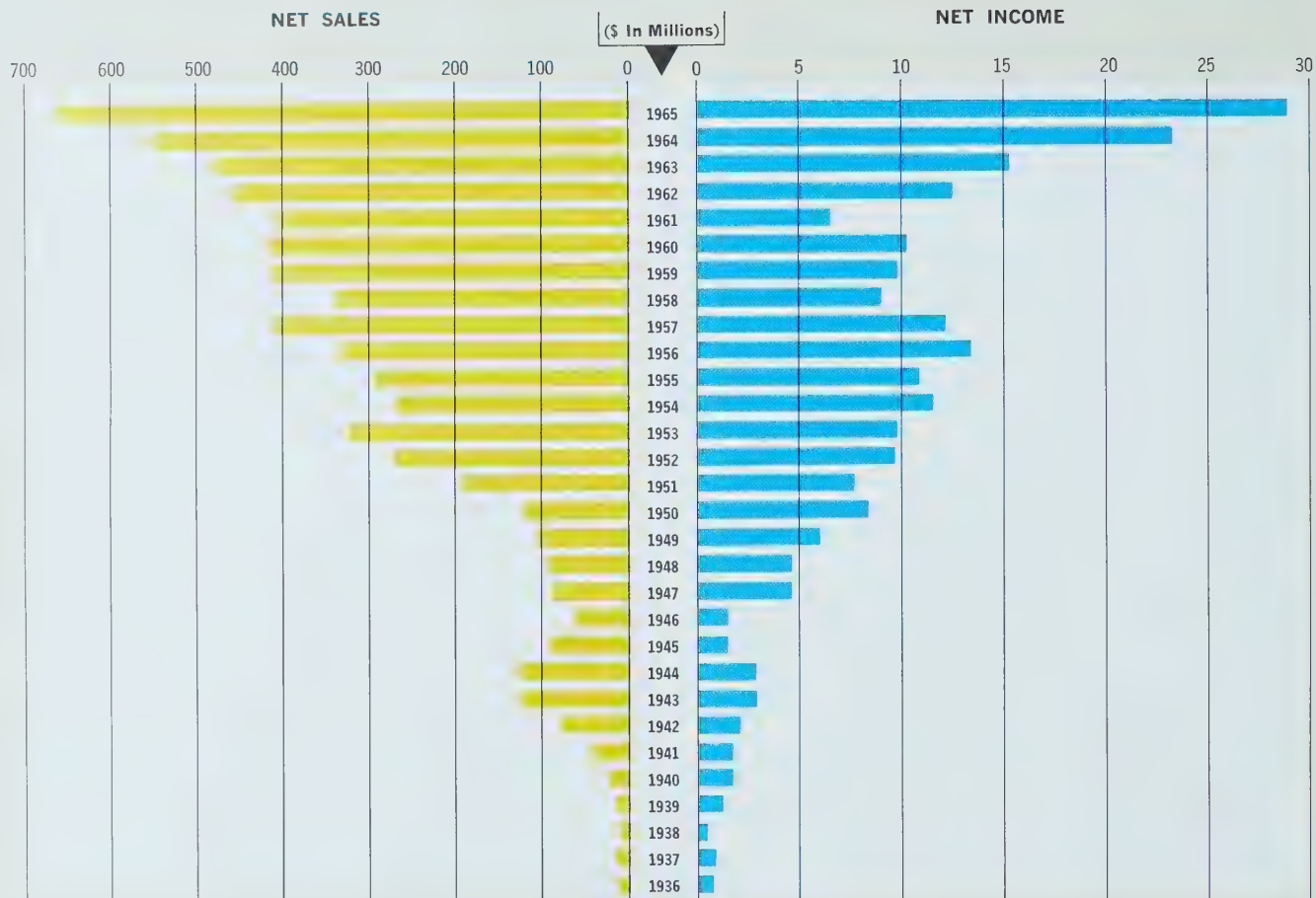
A new TRW facility was completed last year in Uitenhage, South Africa, and will soon begin production of a full line of TRW automotive products. This is a joint venture with Anglo-American Industrial Corporation Ltd. of South Africa.

Fuji Valve Co., Ltd., our Japanese affiliate, is completing a new factory in Fujisawa, near Tokyo.

Last year an agreement was made with Hawker Siddeley Dynamics Ltd., of England, under which TRW will provide technical support for newly developing European national and international space programs. In France, we began a joint venture with Engins-Matra of Paris which calls for the formation of an international space systems company called Matrel. TRW also consulted on systems engineering and developed telemetry equipment for France's recently launched FR-1 satellite. Discussions also are under way with other European countries and Japan concerning the possibility of mutual development of international space markets.

In each of our major operations, there appear to be many additional opportunities for expansion in international markets.

TRW FINANCIAL REVIEW



1965—A year of new records and significant growth

For the third consecutive year, TRW achieved new records in sales, net income, earnings per share and dividends. 1965 was also a year when important new investments were made for future growth. The net profit margin and return on common shareholders' equity were the highest in the last fifteen years. During 1965, the quarterly dividend rate was increased twice in addition to a special year-end extra dividend. The number of shareholders and employees also reached new peak levels.

Sales Increase \$111.1 Million. Consolidated sales for TRW rose to \$664.5 million, a growth of about 20% above the 1964 level of \$553.4 million. The increase of \$111.1 million reflected higher sales in most of TRW's principal markets and also included the consolidation of the Latin American operations and an English acquisition. Continuing the trend of the past three years, sales in each quarter of 1965 increased over the comparable year-earlier period. Quarterly sales for 1965 and the three prior years are included in the following summary:

(\$ in millions)				
Quarter Ending	1965	1964	1963	1962
March 31	\$155.1	\$138.3	\$117.4	\$111.7
June 30	164.8	144.2	122.7	119.9
September 30	162.5	128.2	117.0	110.6
December 31	182.1	142.7	125.5	118.1
Total Year.	<u>\$664.5</u>	<u>\$553.4</u>	<u>\$482.6</u>	<u>\$460.3</u>

The favorable customer and market diversification achieved in recent years showed further improvement during 1965. Sales to commercial and industrial customers were a moderately larger percent of total volume due largely to the added international business and relatively higher growth in the commercial markets.

The higher sales level in the domestic commercial activities reflected expansion in all principal product lines. The company benefited from increased requirements for commercial aircraft components, and sales of commercial electronic products reflected the accelerated demand for color TV, home and auto

radios and other entertainment systems. TRW continued to provide millions of components for expanding motor vehicle and industrial equipment markets. Substantial growth was achieved in government markets as the company maintained its position as a major supplier of aerospace systems, components and services.

Record Earnings Per Share—Up 29%. The profit improvement in 1965 reflected not only the higher volume but also a continuing internal operating improvement resulting in better margins. Profit before taxes was \$54.5 million, an increase of \$10.8 million, or about 25% above the \$43.7 million earned in 1964. After deduction of U.S. and foreign income taxes (46.8% of total income versus 46.5% in 1964) net income amounted to \$29.0 million. The increase of \$5.6 million was about 24% above the 1964 level of \$23.4 million. The net profit margin, stated as a percentage of sales, advanced to 4.4% compared with 4.2% in 1964 and 3.1%, 2.7% and 1.6% in the previous three years. An even more important measure of profitability is return on the common shareholders' equity. For 1965, this margin was 18.3%, up from 14.9% in the previous year.

The principal criterion of profitable growth is the improvement in earnings per common share. For 1965, this figure was \$3.15 per share, a growth of about 29% above the previous record level of \$2.45 established in 1964. Included in this year's figure was \$.10 per share as a result of the government's investment tax credit program. This compared with \$.18 per share in 1964 (which included \$.08 per share resulting from the inclusion in income of the investment tax credit deferred in 1962 and 1963 due to the 1964 tax law changes).

Earnings per share growth has shown a trend comparable to the quarterly sales levels discussed earlier. The quarterly earnings figures for the last four years are shown below:

Quarter Ending	1965	1964	1963	1962
March 31	\$.64	\$.52	\$.40	\$.38
June 30 . . . . .	.92	.73	.52	.46
September 30 . . . . .	.71	.51	.41	.35
December 31 . . . . .	.88	.69	.65	.44
Total Year.	<u>\$3.15</u>	<u>\$2.45</u>	<u>\$1.98</u>	<u>\$1.63</u>

Higher Cash Dividends. The 109th consecutive quarterly dividend was distributed to shareholders on December 15, 1965. Payments during 1965 amounted to \$1.20 per common share, a one-third increase above the \$.90 paid in 1964. The 1965 payments included three quarterly dividends of \$.25 per share, and a fourth-quarter payment of \$.30 per share plus a year-end extra of \$.15 per share. In addition, at the December board meeting, the Directors again increased the quarterly dividend rate to \$.35 per share, equivalent to an annual rate of \$1.40, effective with the March 15, 1966 payment. Since 1962, dividend payments per share have about doubled in line with the substantial rise in earnings.

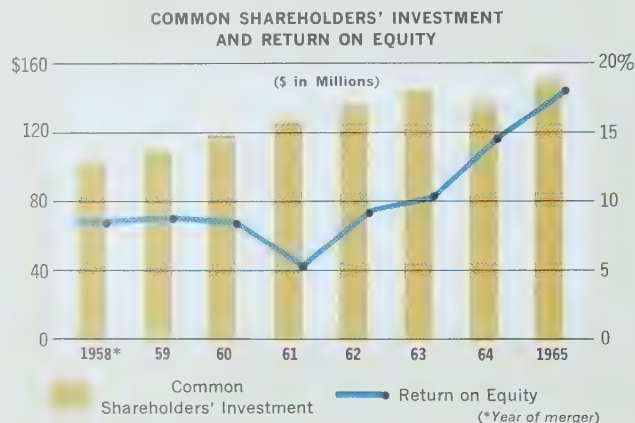
Financial Strength Supports Growth. The strong financial resources and flexibility built up over the last few years permitted TRW to invest in important new business ventures during 1965 and early 1966. The audited financial statements are on pages 20 to 24. While total resources advanced to another new peak at

year-end 1965, the company's cash and marketable securities were reduced and bank loans were being employed for the first time, in any substantial amount, in several years. These changes reflect largely the investment made in Cam Gears Ltd., the substantially increased expenditures for new facilities and equipment and the higher investment in receivables and inventories to support the sales growth.

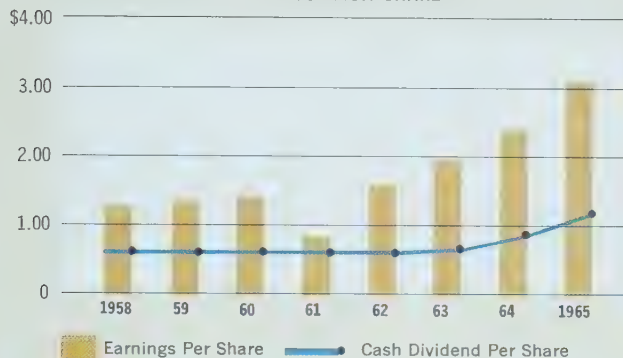
At December 31, 1965, total assets amounted to \$363.1 million, an increase of \$45.5 million above the year-earlier level of \$317.6 million. Reflecting the Cam Gears investment along with other factors, working capital, excluding foreign subsidiaries other than Canada, declined moderately to \$115.5 million as compared with \$124.4 million at December 31, 1964. The Source and Application of Funds statement on page 17 includes the various items that affected working capital during 1965 compared with the previous year. Cash and securities of \$24.4 million were \$5.3 million below the level of a year earlier. Current bank loans amounted to \$13.4 million at the end of the year.

TRW's investment in accounts receivable increased \$14.3 million to a new peak level of \$86.2 million. This was an increase of about 20%, and commensurate with the higher sales volume. Added requirements for inventories also existed throughout 1965 with the year-end level of \$93.2 million about \$10.7 million above the December 31, 1964 amount. This relatively moderate inventory increase reflected largely TRW's continuing program to control and reduce, where possible, this type of investment.

In conjunction with the international expansion program, TRW had intended to finance the major international investments through the use of available cash or domestic financing. In response to the Government's voluntary program to improve the balance of payments, however, these plans were changed and overseas bank loans were arranged to finance a large part of these transactions. At the end of 1965, TRW had outstanding \$10 million of overseas bank loans. In January 1966, to finance the recently



EARNINGS AND CASH DIVIDENDS PER COMMON SHARE



announced acquisition of Clifford Motor Components Ltd., these loans were increased to \$37.5 million. Although this type of international financing does not provide a permanent basis for these investments, TRW believes that these arrangements offer the maximum flexibility over the next few years to determine the most advantageous long-term solution.

International Expansion Continues. During 1965, TRW made important new investments in foreign enterprises as discussed above. Sales of the majority-owned foreign subsidiaries were included in TRW's consolidated results for 1965. Earnings from foreign sources (excluding Canada and including Cam Gears Ltd. only from May 1965, the month of acquisition), including royalties and TRW's equity in earnings of a 50%-owned company, amounted to \$3.1 million compared with \$1.5 million in the prior year.

TRW's investments in these foreign enterprises (excluding

Canadian subsidiaries) amounted to \$40.9 million at the end of 1965, and may be summarized as shown in the table below:

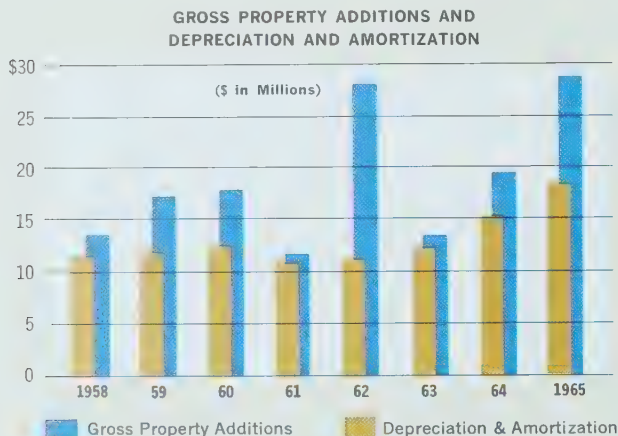
	(\$ in Millions)				
	Latin America	United Kingdom	Continental Europe	Other	Total
Current assets	\$11.7	\$ 8.2	\$12.5	\$ 3.1	\$35.5
Fixed assets—net	6.6	7.2	8.4	3.3	25.5
Other assets	1.5	.8	3.3	.3	5.9
Intangibles—at cost to TRW .	—	7.4	1.8	.2	9.4
Total Assets	\$19.8	\$23.6	\$26.0	\$ 6.9	\$76.3
Current liabilities	\$ 5.4	\$ 5.1	\$ 6.7	\$ 1.7	\$18.9
Other liabilities	1.8	1.6	1.8	1.7	6.9
Other shareholders' interest .	2.1	.2	5.5	1.8	9.6
Total Deductions.	\$ 9.3	\$ 6.9	\$14.0	\$ 5.2	\$35.4
Investments in foreign enterprises	\$10.5	\$16.7	\$12.0	\$ 1.7	\$40.9

New Facilities Spending Up Sharply. During 1965, most of TRW's operating units encountered peak capacity requirements. These growth conditions resulted in major expenditures for new facilities and equipment. The table below shows an analysis of the \$28.7 million spent during 1965 compared with \$19.7 million for the previous year.

	Expenditures (\$ in millions)	
	1965	1964
New product support and expansion of capacity	\$13.6	\$ 8.6
Modernization and replacement of facilities for cost reduction	3.8	5.1
Buildings, leasehold improvements and real estate	5.4	3.3
International subsidiaries' expenditures	2.6	—
Other	3.3	2.7
Total Expenditures	\$28.7	\$19.7

Capital Resources and Net Worth. At December 31, 1965, total shareholders' investment amounted to \$211.3 million compared with \$198.8 million a year earlier. This was equivalent to a book value of \$17.53 per common share, up from \$15.93 at the end of 1964. During the year TRW purchased 34,100 shares of common stock which were classified as treasury shares. There are now a total of 592,172 shares held in the treasury including those acquired in 1963 and 1964. The number of Series A preference shares was reduced to 530,158 shares at the end of the year through the voluntary conversion of 35,169 shares into 109,021 shares of common stock. In anticipation of future sinking fund requirements, TRW purchased and retired 1,460 shares of the 4% preferred stock.

Funded or long-term debt increased to \$63.1 million as compared with \$58.7 million a year earlier. The higher level reflected notes to overseas banks discussed above, partially offset by reductions in the domestic debt. During 1965, \$24,000 of the 3¼% debentures were purchased and \$1 million of the 5¼% debentures were called for redemption pursuant to sinking fund provisions. In addition, \$10,000 of the 4⅞% subordinated debentures were converted into common stock.



The company's capital structure remained in a very strong position at the year end, even with the new higher financing requirements. On December 31, 1965, TRW had \$274.5 million of permanent capital, up from \$257.4 million at the end of 1964. Long-term debt outstanding represented 23% of the total capitalization—the same percentage as in the prior year. With total shareholders' investment representing 77% of the long-term capital, TRW retains comfortable financial flexibility to meet future growth needs.

Growth in Common Shares and Shareholders. There were 8,490,238 common shares outstanding at the end of 1965, an increase of 178,636 shares above the end of the previous year. Of the higher number of outstanding shares, 109,323 were issued in the conversion of 35,169 shares of the Series A preference stock and \$10,000 principal amount of the 4⅞% subordinated debentures, and 103,413 shares were issued pursuant to the exercise of stock options. These increases were partially offset by 34,100 shares purchased in the open market and classified as treasury shares.

At year end, there were 21,088 common shareholders of record, a new peak number. This compares with 18,402 at the end of 1964. These figures do not include several thousand additional shareholders whose shares are registered in the "street-name" of brokers or bank nominees. The table below shows an analysis of the shareholders of record based on ownership data that are available to the company:

	Number of Holders	Number of Shares	% of Total Shares
Men	6,952	1,499,675	17.7%
Women	6,925	1,301,986	15.3
Joint Accounts	4,132	284,043	3.3
Individual Fiduciaries	408	65,054	.8
Total Individuals (Excluding Management)	18,417	3,150,758	37.1%
Banks and Trust Companies*	720	2,950,048	34.8
Brokers**	326	1,072,775	12.6
Institutional Investors***	197	656,380	7.7
Directors and Management	57	490,371	5.8
Others	1,371	169,906	2.0
Total	21,088	8,490,238	100.0%

*As fiduciary or nominee

**Excluding nominees

***Exclusive of institutional holdings included under bank or broker nominees.

TRW statement of source and application of funds

	Year Ended December 31	
SOURCE OF FUNDS	1965	1964
From operations:		
Net income	\$ 28,976,112	\$ 23,408,851
Depreciation and amortization of property, plant, and equipment	18,486,197	15,414,468
	<u>\$ 47,462,309</u>	<u>\$ 38,823,319</u>
Working capital of businesses acquired for capital stock	—0—	27,110,884
New financing—note to bank due beyond one year	5,000,000	—0—
Sale of stock under options	2,235,238	593,789
Payment of long-term note receivable	1,681,060	—0—
	<u>\$ 56,378,607</u>	<u>\$ 66,527,992</u>
APPLICATION OF FUNDS		
Dividends declared	\$ 13,546,066	\$ 9,754,474
Additions to property, plant, and equipment, net of normal retirements	25,841,505	18,704,500
Reduction of long-term debt	524,000	2,511,624
Investment in foreign enterprises	19,783,104	2,352,390
Provision (net of income taxes) for lease cancellation costs and other charges related to equipment no longer required in the business	3,350,000	—0—
Purchase of capital stock for treasury or retirement	1,169,479	16,408,557
Other—net	1,040,236	2,981,928
	<u>\$ 65,254,390</u>	<u>\$ 52,713,473</u>
(Decrease) increase in working capital—see schedule below	(8,875,783)	13,814,519
	<u>\$ 56,378,607</u>	<u>\$ 66,527,992</u>
Current assets		\$184,136,059
Current liabilities	88,300,161	59,750,533
Working capital—end of year	\$115,509,743	\$124,385,526
Working capital—beginning of year	124,385,526	110,571,007
	<u>(\$ 8,875,783)</u>	<u>\$ 13,814,519</u>

TRW fifteen-year financial review (Dollar amounts in thousands except for per share data)

RESULTS FOR THE YEAR	1965	1964	1963	1962	1961	1960	1959
Net Sales	\$664,510	\$553,420	\$482,639	\$460,314	\$409,077	\$420,421	\$417,749
Income before income taxes	54,473	43,745	29,393	25,204	12,668	20,947	19,814
% to sales	8.2%	7.9%	6.1%	5.5%	3.1%	5.0%	4.7%
Net income	28,976	23,409	15,165	12,454	6,459	10,177	9,744
% to sales	4.4%	4.2%	3.1%	2.7%	1.6%	2.4%	2.3%
% to common shareholders' equity	18.3%	14.9%	10.7%	9.4%	5.1%	8.8%	9.0%
Cash dividends paid	12,691	10,166	5,762	5,074	4,896	4,723	4,570
Reinvested earnings	16,285	13,243	9,403	7,380	1,563	5,454	5,174
Gross property additions	28,698	19,672	13,472	28,232	11,701	17,912	17,391
Depreciation and amortization	18,486	15,414	12,386	11,417	10,845	12,494	11,841
YEAR-END POSITION							
Inventories	93,161	82,455	60,011	66,419	65,431	70,245	61,757
Current assets	203,810	184,136	160,167	151,794	148,042	160,635	147,771
Current liabilities	88,300	59,750	49,596	48,750	42,709	77,319	80,435
Working capital	115,510	124,386	110,571	103,044	105,333	83,316	67,336
Current ratio	2.3	3.1	3.2	3.1	3.5	2.1	1.8
Net property, plant and equipment	108,473	99,600	80,788	85,877	70,408	71,176	83,050
Short term loans	13,372	—0—	648	—0—	8,000	35,000	37,800
Long-term debt	63,123	58,657	60,837	61,676	55,831	30,893	39,949
Total assets	363,086	317,602	261,620	253,740	233,301	239,534	237,800
Total shareholders' investment	211,330	198,777	150,345	141,566	133,105	123,972	115,921
Per Common Share							
Net income	\$ 3.15	\$ 2.45	\$ 1.98	\$ 1.63	\$.86	\$ 1.42	\$ 1.37
Dividends	1.20	.90	.73	.64	.64	.64	.64
Book value	17.53	15.93	18.94	17.74	16.94	16.66	15.62
Shares Outstanding							
4% Preferred	64,088	65,548	72,898	77,208	78,188	78,708	81,708
Series A Preference	530,158	565,160	—	—	—	—	—
Common	8,490,238	8,311,602	3,763,990	3,758,992	3,346,969	3,152,605	3,119,503
Common—adjusted for stock splits and stock dividends	8,490,238	8,311,602	7,527,980	7,517,984	7,363,332	6,935,732	6,862,906
Worldwide Employment	46,873	39,511	33,191	31,810	28,655	26,132	27,451

1958	1957	1956	1955	1954	1953	1952	1951
\$340,622	\$412,609	\$335,520	\$295,907	\$270,830	\$326,466	\$274,080	\$194,899
18,815	25,442	27,237	22,602	24,646	27,662	28,853	20,698
5.5%	6.2%	8.1%	7.6%	9.1%	8.5%	10.5%	10.6%
8,979	12,138	13,352	10,772	11,535	9,652	9,253	7,687
2.6%	2.9%	4.0%	3.6%	4.3%	3.0%	3.4%	3.9%
8.7%	12.7%	15.4%	13.8%	16.8%	16.1%	17.4%	17.3%
4,292	4,201	4,184	4,161	3,258	2,791	2,729	2,665
4,687	7,937	9,168	6,611	8,277	6,861	6,524	5,022
13,748	27,369	29,735	16,048	8,478	7,211	8,978	12,231
11,698	9,163	7,840	6,766	6,267	5,985	3,783	1,936
47,162	60,122	74,859	54,179	53,560	60,852	65,603	50,269
119,065	126,799	138,693	96,207	94,044	112,061	128,498	86,989
52,864	67,518	97,999	46,369	42,352	66,600	88,761	48,423
66,201	59,281	40,694	49,838	51,692	45,461	39,737	38,566
2.2	1.9	1.4	2.1	2.2	1.7	1.4	1.8
77,631	77,802	67,560	48,324	39,339	37,332	36,334	31,396
14,500	26,000	55,500	12,600	10,100	45,400	54,300	25,000
40,943	37,954	15,571	13,874	14,437	15,000	15,000	15,000
203,524	210,838	211,234	147,918	136,907	151,917	167,226	120,331
109,698	105,151	96,497	87,637	80,118	70,317	63,465	56,909
\$ 1.30	\$ 1.78	\$ 1.96	\$ 1.59	\$ 1.74	\$ 1.48	\$ 1.55	\$ 1.28
.64	.64	.64	.64	.50	.42	.41	.41
15.17	14.51	13.12	11.91	10.98	9.61	9.37	8.23
81,708	83,788	86,898	87,108	88,218	89,418	90,853	91,353
—	—	—	—	—	—	—	—
1,024,983	2,762,593	2,752,888	2,728,537	2,663,222	1,304,812	1,183,017	1,180,704
6,654,962	6,650,462	6,629,110	6,575,538	6,431,846	6,313,930	5,725,804	5,714,606
25,899	23,091	26,690	22,565	21,902	24,037	25,866	18,624

notes

Data prior to 1958 have been reconstructed to include operations of The Ramo-Wooldridge Corporation and TRW Semiconductors Inc. from dates of their incorporation. Statistics for 1959 include operations for the full year of Radio Industries, Inc. which was acquired in December 1959; data for 1960 include full-year operations for Good-All Electric Mfg. Co. which was acquired in April 1960; figures for 1961 include results for eight months of Radio Condenser Co., acquired in April 1961; statistics for 1964 include operations for the full year of both Marlin-Rockwell and Ross Gear; and data for 1965 include Cam Gears, Ltd. from May 1965, the month of acquisition.

The per share statistics were computed on the basis of common shares outstanding at the respective year-ends (except for 1961 through 1965 which were based on average number of shares outstanding for the year) adjusted to give effect to: (a) the stock split of 2 for 1 in December 1964; (b) the 10% stock dividend declared in December 1962; (c) the stock split of 2 for 1 in October 1954; (d) the 10% stock dividend in September 1953; and (e) with respect to book value and earnings per share, the issuance of 260,344 common shares in connection with the 1958 merger.

The average numbers of common shares used to compute the 1961-1965 per share statistics were as follows: 1965—8,383,193; 1964—8,460,576; 1963—7,527,450; 1962—7,476,462; 1961—7,176,928.

TRW statement of consolidated income and retained income

	Year Ended December 31	
	1965	1964
Net sales	\$664,509,788	\$553,419,546
Other income	3,312,478	4,947,829
	<u>\$667,822,266</u>	<u>\$558,367,375</u>
Deductions (including depreciation, 1965—\$18,486,197; 1964—\$15,414,468):		
Cost of products and services sold	\$532,614,402	\$445,010,457
Administrative, research and development, and selling expenses	75,588,382	65,977,960
Interest expense	3,835,746	3,007,270
Other deductions	1,310,624	626,837
	<u>\$613,349,154</u>	<u>\$514,622,524</u>
Income before income taxes	\$ 54,473,112	\$ 43,744,851
Income taxes—estimated	25,497,000	20,336,000
NET INCOME	<u>\$ 28,976,112</u>	<u>\$ 23,408,851</u>
Retained income at beginning of year	114,674,393	117,853,074
	<u>\$143,650,505</u>	<u>\$141,261,925</u>
Deductions:		
Dividends declared:		
On 4% Cumulative Preferred Stock	\$ 259,162	\$ 268,442
On Series A Preference Stock	2,351,047	1,801,405
On Common Stock	10,935,857	7,684,627
	<u>\$ 13,546,066</u>	<u>\$ 9,754,474</u>
Provision (net of income taxes) for lease cancellation costs and other charges related to equipment no longer required in the business and elimination of intangibles related to business discontinued .	3,942,549	—0—
Charge resulting from purchase of stock for treasury	956,005	12,255,998
Transfer to capital-stock accounts and other charges in connection with business acquisitions . . .	—0—	4,577,060
	<u>\$ 18,444,620</u>	<u>\$ 26,587,532</u>
RETAINED INCOME AT END OF YEAR	<u>\$125,205,885</u>	<u>\$114,674,393</u>

See notes to financial statements.

TRW statement of consolidated shareholders' investment

	Year Ended December 31	
	1965	1964
4% PREFERRED STOCK—outstanding shares at par value		
Balance at beginning of year	\$ 6,554,800	\$ 7,289,800
Purchased and retired	146,000	735,000
4% Preferred Stock at end of year	\$ 6,408,800	\$ 6,554,800
SERIES A PREFERENCE STOCK—outstanding shares at liquidation price		
Balance at beginning of year	\$ 56,516,000	\$ —0—
Sold under stock options		5,500
Converted to Common Stock	(3,516,900)	—0—
Issued in business acquisitions		56,510,500
Series A Preference Stock at end of year	\$ 53,015,800	\$ 56,516,000
COMMON STOCK—outstanding shares at par value		
Balance at beginning of year	\$ 20,779,005	\$ 18,819,950
Sold under stock options.		68,260
Issued in conversion of Series A Preference Stock and 4½% Subordinated Debentures	273,308	—0—
Issued in business acquisitions	—0—	3,269,975
Purchased for the treasury	(85,250)	(1,379,180)
Common Stock at end of year	\$ 21,225,595	\$ 20,779,005
OTHER CAPITAL		
Balance at beginning of year	\$ 252,558	\$ 35,830,365
Arising from retirement of Preferred Stock and conversion of Series A Preference Stock and 4½% Subordinated Debentures.	3,265,040	50,766
Excess of proceeds from sale over stated value of stock sold under stock options.	1,960,006	520,029
Charge resulting from purchase of stock for treasury	(3,688)	(2,089,145)
Transfer to capital-stock accounts in connection with business acquisitions	—0—	(34,059,457)
Other Capital at end of year	\$ 5,473,916	\$ 252,558
RETAINED INCOME		
Balance at end of year—see separate statement	125,205,885	114,674,393
TOTAL SHAREHOLDERS' INVESTMENT AT END OF YEAR	<u>\$211,329,996</u>	<u>\$198,776,756</u>

See notes to financial statements.

TRW consolidated balance sheet

Assets	December 31	
	1965	1964
CURRENT ASSETS		
Cash	\$ 23,576,750	\$ 16,673,921
Marketable securities—at cost	857,553	13,042,533
Accounts receivable:		
Trade accounts	\$ 45,220,833	\$ 38,442,714
Reimbursable costs, fees, and claims under Government contracts and subcontracts	41,544,446	34,225,004
Less allowances	(762,752)	(703,411)
	\$ 86,214,740	\$ 71,964,307
Inventories—at lower of cost (partly last-in, first-out) or market:		
Finished products and work in process	\$ 73,280,284	\$ 67,450,111
Raw materials and supplies	19,880,577	15,005,187
	\$ 93,160,861	\$ 82,455,298
TOTAL CURRENT ASSETS	\$203,809,904	\$184,136,059
INVESTMENTS IN FOREIGN ENTERPRISES—Note A	40,921,684	21,343,336
PROPERTY, PLANT, AND EQUIPMENT—on the basis of cost		
Land	\$ 4,768,729	\$ 4,743,176
Buildings	88,873,776	85,134,087
Machinery and equipment	161,240,004	143,031,017
	\$254,882,509	\$232,908,280
Less allowances for depreciation and amortization	146,409,419	133,307,834
TOTAL PROPERTY, PLANT, AND EQUIPMENT—net	\$108,473,090	\$ 99,600,446
MISCELLANEOUS OTHER ASSETS	4,106,705	6,299,518
PATENTS, LICENSES, AND OTHER INTANGIBLES	1,623,031	2,243,495
PREPAID EXPENSES AND OTHER DEFERRED CHARGES	4,151,978	3,979,392
	<u>\$363,086,392</u>	<u>\$317,602,246</u>

Liabilities and Shareholders' Investment

December 31

	1965	1964
CURRENT LIABILITIES		
Notes payable to banks	\$ 13,372,000	\$ —0—
Trade accounts payable	22,552,276	15,798,151
Accrued payroll and amounts withheld therefrom	12,128,086	8,867,325
Accruals for taxes and other expenses	22,560,915	19,019,200
Dividends payable	3,598,964	2,743,931
Income taxes	14,087,920	12,821,926
Amounts payable within one year on long-term debt	—0—	500,000
TOTAL CURRENT LIABILITIES	\$ 88,300,161	\$ 59,750,533
LONG-TERM DEBT—excluding payments due currently—Note B		
3¼% Debentures due 1971	\$ 7,403,000	\$ 7,427,000
4⅞% Subordinated Debentures due 1982	19,719,500	19,729,500
5¼% Debentures due 1986	24,000,000	24,500,000
5% Trust-deed notes due 1982	7,000,000	7,000,000
Note payable to bank due May 10, 1967	5,000,000	—0—
TOTAL LONG-TERM DEBT	\$ 63,122,500	\$ 58,656,500
MINORITY INTEREST IN DOMESTIC SUBSIDIARIES	333,735	418,457
SHAREHOLDERS' INVESTMENT		
4% Cumulative Preferred Stock, \$100 par value:		
Authorized 72,098 shares; outstanding 64,088 shares	\$ 6,408,800	\$ 6,554,800
Serial Preference Stock, without par value:		
Authorized 750,000 shares; outstanding 530,158 shares, designated as \$4.25		
Cumulative Preference Stock, Series A, stated at		
involuntary liquidation price of \$100—Note C	53,015,800	56,516,000
Common Stock, \$2.50 par value:		
Authorized 15,000,000 shares; reserved 2,695,151 shares—Notes B, C, and D;		
outstanding 8,490,238 shares, excluding 592,172 shares		
in treasury (1964—558,072 shares)	21,225,595	20,779,005
Other capital	5,473,916	252,558
Retained income—Note B	125,205,885	114,674,393
TOTAL SHAREHOLDERS' INVESTMENT	\$211,329,996	\$198,776,756
	<u><u>\$363,086,392</u></u>	<u><u>\$317,602,246</u></u>

See notes to financial statements.

notes to financial statements

Year ended December 31, 1965

Note A—The accounts of all subsidiaries are consolidated in the statement of income and retained income; the accounts of all United States and Canadian subsidiaries are consolidated in the balance sheet and the assets and liabilities of the other foreign subsidiaries are reflected in the balance sheet as a part of investments in foreign enterprises, which investments as to such subsidiaries are stated at cost to the Company adjusted for its share of undistributed net income (or losses) since acquisition (\$30,674,399). This method of reporting the accounts of foreign subsidiaries at December 31, 1965, did not materially affect the comparability of the balance sheet with that at December 31, 1964. In addition to these investments in foreign subsidiaries, investments in foreign enterprises at December 31, 1965, included 50% ownership in one corporation, stated at cost plus equity in undistributed income since acquisition (\$6,106,094), and investments in several less-than-50%-owned corporations stated at cost (\$4,141,191).

The Company's investment in foreign subsidiaries (exclusive of Canadian) and 50%-owned corporation exceeds its equity in net assets by \$8,393,000 representing principally the cost of the investment in excess of underlying net assets at date of acquisition.

The Company's equity in net income of foreign subsidiaries and 50%-owned corporation for the year 1965, amounted to \$2,360,000 and dividends received from such companies amounted to \$557,000.

The geographical distribution of the assets and liabilities of the foreign enterprises is shown in a tabulation on page 15.

Note B—Annual sinking fund requirements in respect of the several issues of outstanding debentures amount to \$563,000 for the 3¼% issue, \$500,000 (which will increase after 1970) for the 5¼% issue, and \$845,000 (beginning in 1968) for the 4¾% issue. The 5% trust-deed notes are payable in semiannual installments of \$175,000 each beginning June 1, 1967, with a final installment of \$1,750,000 on June 1, 1982. The amounts shown as outstanding at December 31, 1965 are after advance payment of sinking fund requirements for the 3¼% Debentures (\$1,404,000) and 5¼% Debentures (\$500,000).

The 4¾% Subordinated Debentures are convertible on or before August 1, 1967, into Common Stock of the Company at the rate of one share for each \$32.705 principal amount of Debentures; 602,954 shares of Common Stock are reserved for this purpose.

Among other covenants, the indentures impose limitations on the payment of dividends. Under the most restrictive interpretation of these limiting covenants, retained income at December 31, 1965, was unrestricted to the extent of approximately \$52,100,000.

Note C—The Series A Preference Stock is convertible on or before June 15, 1979, on the basis of \$32.25 per share of Common Stock taking each share of Series A Preference Stock at \$100 for this purpose. At December 31, 1965, there were 1,644,158 common shares reserved for conversion of Series A shares.

Note D—The Company has granted options to officers and employees to purchase unissued Common Stock of the Company at prices not less than 85% of the fair market price at date of

grant, except that for officers who are also Directors of the Company and for options granted subsequent to December 31, 1963, the option price equals the market price at date of grant. In general, the options are exercisable to the extent of one-third to one-fifth of the optioned shares for each full year of employment following the date of grant and expire from five to ten years after date of grant. The following tabulation shows the shares reserved for options and the options outstanding at the beginning and end of the year, the changes therein during the year, and the market prices as of the respective dates on which options were granted or exercised or became exercisable.

	Number of Shares	Aggregate Option Price	Corres- ponding Market Price
At beginning of year:			
Options outstanding	428,912	\$ 9,626,556	
Reserved for future options	122,540		
Changes during the year:			
Options granted	70,450	2,713,487	\$ 2,713,487
Options becoming exercisable	57,204	1,307,680	1,965,945
Options exercised	103,413	2,222,986	3,608,264
Options canceled	1,743	28,642	
At end of year:			
Options outstanding	394,206	10,088,415	10,763,428
Reserved for future options	53,833		

Note E—According to actuarial valuations, the unfunded liability for past-service costs under the companies' several employee-retirement plans was approximately \$33,000,000 at December 31, 1965, and the annual normal cost (which does not include funding of or interest on the past-service costs) is approximately \$8,400,000.

Note F—The aggregate rental obligations of the Company and its subsidiaries under leases in effect at December 31, 1965, which expire more than three years after that date, amount to approximately \$57,700,000 of which approximately \$3,600,000 is payable in 1966, \$17,400,000 in the five-year period 1967 through 1971, \$12,200,000 in 1972—1976, \$9,800,000 in 1977—1981, and \$14,700,000 thereafter.

Note G—Sales for the years 1965 and 1964 include amounts subject to renegotiation for the limitation of profit, but the Company believes that no adjustments of reported net income will be required. Renegotiation has been completed for all years prior to 1964.

Note H—In January, 1966, the Company purchased more than 90% of the outstanding stock of a corporation in the United Kingdom and the remaining interest not previously owned in a corporation in France, for a total of approximately \$30,000,000, the greater portion of which was borrowed from European sources.

accountants' report

The Directors
TRW Inc.
Cleveland, Ohio

We have examined the consolidated balance sheet of TRW Inc. and subsidiaries as of December 31, 1965, and the related statements of income and retained income and shareholders' investment for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It was not practicable to confirm by direct communication all amounts receivable from the United States Government and certain other customers, but we satisfied ourselves as to such amounts by means of other auditing procedures. We made a similar examination of the consolidated financial statements of the Company and subsidiaries for the year 1964.

In our opinion, the accompanying balance sheet and statements of income and retained income and shareholders' investment present fairly the consolidated financial position of TRW Inc. and its subsidiaries at December 31, 1965, and the consolidated results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Further, it is our opinion that the accompanying statement of source and application of funds presents fairly the factors contributing to the changes in working capital.

Cleveland, Ohio
February 7, 1966

Ernst & Ernst



OPERATIONS PRODUCTS SERVICES

TRW Inc. is a diversified company composed of four decentralized operating groups based on related product lines and technologies. Our 25 U.S. divisions and subsidiaries employ about 40,000 people, and more than 11,000 people are working in TRW's 17 principal international subsidiaries located in 12 countries.*

Relating corporate capabilities to the achievement of primary national goals has helped TRW become a leader in many fields. Today we are supplying growing transportation markets, participating in the development of dynamic electronics and communications markets and contributing to aerospace and industrial programs on the farthest frontiers of advanced technology. We grew up with the automobile and aircraft industries, helped launch the electronics and space age, and are now exploring new opportunities for providing our components, systems and services on a worldwide basis.

CORPORATE HEADQUARTERS

23555 Euclid Avenue—Cleveland, Ohio 44117
(216) 383-2121

WEST COAST OFFICES

One Space Park—Redondo Beach, Calif. 90278
(213) 679-8711

WASHINGTON OFFICES

1875 Connecticut Avenue
Washington, D.C. 20009
(202) 234-9330

*Employment as of Feb. 1966.

TRW AUTOMOTIVE OPERATIONS

E. P. RILEY, *Executive Vice President*

Headquarters:
23555 Euclid Avenue, Cleveland, Ohio, 44117

TRW MICHIGAN DIVISION

Headquarters: Warren, Mich. 48092
Plants: Warren, Detroit and Portland, Mich.;
Cleveland, Ohio

C. W. Ohly, *Vice President and General Manager*

Steering linkage and front end suspension parts and assemblies for passenger cars, trucks, tractors, farm implements, and industrial vehicles; both high and low pressure hydraulic pumps for power steering, automatic transmissions, and other applications for the automotive, truck, tractor, farm implement, and industrial markets; king bolts, piston pins, water pumps; impact extrusions, aluminum permanent mold and high pressure die castings; cast and impact-forged aluminum alloy pistons.



Precision bearings are inspected in ultra-clean facility at Marlin-Rockwell's Falconer, N. Y., plant.

TRW's aluminum forged pistons are standard equipment on Indianapolis racers and in many other high-performance car, truck and marine engines.

MARLIN-ROCKWELL COMPANY DIVISION

Headquarters: 402 Chandler Street
Jamestown, N. Y. 14701
Plants: Jamestown and Falconer, N. Y.;
Plainville, Conn.

R. S. Kenerson, *Vice President and General Manager*

Ball and roller bearings for passenger cars, trucks, tractors, farm and earth-moving equipment, power transmission machinery; a wide cross-section of industry including machine tools, electric motors and material handling equipment; jet engines, helicopter and airframe applications; space vehicles and missiles. Supplies "MRC" replacement bearings.

ROSS GEAR DIVISION

Headquarters: 800 Heath Street
Lafayette, Indiana 47902
Plants: Lafayette, Ind.; Lebanon, Wilson County, Tenn.

F. H. Davis, *President and General Manager*

Produces both manual and power cam and lever,



***"Advanced technology
is the cornerstone
of our business."***

J. D. Wright, Chairman

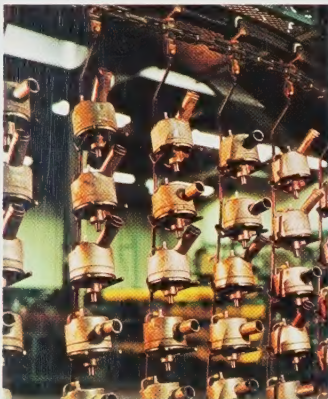
TRW stands for growth through technology. You will find evidence of it in your car, in your TV, on the last jet you took—and in a satellite orbiting around the Sun.

Just about every car or plane you see has TRW parts. Almost all color TV sets and car radios use TRW electronic components. And almost 90% of U.S. spacecraft owe some or all of their success to TRW. Applications of our technology range from engine valves that will outlast your car to satellites that will detect nuclear explosions 10 million miles from earth.

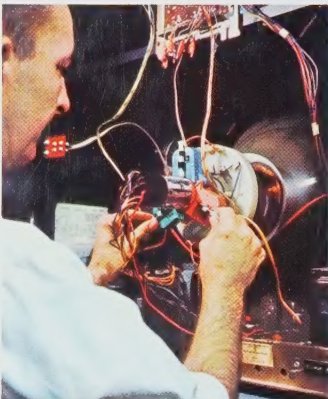
TRW is 50,000 people who specialize in turning advanced concepts into practical products and services for aerospace, automotive, electronic and industrial customers.

TRW INC. is headquartered in Cleveland and has operations in 170 other locations throughout the world.

AUTOMOTIVE—Power Steering Pumps



AIRCRAFT—Commercial Jet Engine Parts



ELECTRONICS—Color TV Components



SPACE—Pioneer VI Spacecraft

TRW

Formerly Thompson Ramo Wooldridge Inc.

